

WHAT IS CLAIMED IS:

1. A pilot channel transmission method of transmitting a pilot channel through a downlink from a base station in  
5 a CDMA mobile communication system including base stations, wherein each base station is installed in one of a plurality of cells, uses a same frequency, and divides its channels using orthogonal codes uniquely assigned to the channels, and each of the cells is identified by multiplying a  
10 spreading code assigned to each base station by the channels spread by the orthogonal codes, said pilot channel transmission method comprising the step of:

assigning, when providing each of said base stations with a plurality of orthogonal code sets to which a  
15 plurality of spreading codes are assigned, pilot channels to each of the plurality of orthogonal code sets, and transmitting at least one of the pilot channels.

2. A pilot channel transmission method of transmitting  
20 pilot channels through a downlink from a base station in a CDMA mobile communication system including base stations, wherein each base station is installed in one of a plurality of cells, uses a same frequency, and divides its channels using orthogonal codes uniquely assigned to the channels,  
25 and each of the cells is identified by multiplying a spreading code assigned to each base station by the channels spread by the orthogonal codes, said pilot channel

transmission method comprising the step of:

providing said pilot channels with a symbol rate higher than a minimum symbol rate defined in said CDMA mobile communication system.

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3. The pilot channel transmission method as claimed in claim 2, wherein the symbol rate higher than the minimum symbol rate is determined in accordance with a relationship between transmission power of each channel and channel capacity.

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4. The pilot channel transmission method as claimed in claim 1 or 2, wherein the pilot channels assigned to second and subsequent orthogonal code sets are not transmitted.

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5. A base station in a CDMA mobile communication system including base stations, wherein each base station is installed in one of a plurality of cells, uses a same frequency, and divides its channels using orthogonal codes uniquely assigned to the channels, and each of the cells is identified by multiplying a spreading code assigned to each base station by the channels spread by the orthogonal codes, said base station comprising:

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a transmitter for assigning, when providing each of said base stations with a plurality of orthogonal code sets to which a plurality of spreading codes are assigned, pilot channels to each of the plurality of orthogonal code sets,

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and for transmitting at least one of the pilot channels.

6. A base station in a CDMA mobile communication system including base stations, wherein each base station is  
5 installed in one of a plurality of cells, uses a same frequency, and divides its channels using orthogonal codes uniquely assigned to the channels, and each of the cells is identified by multiplying a spreading code assigned to each base station by the channels spread by the orthogonal  
10 codes, said base station comprising:

a transmitter for providing pilot channels with a symbol rate higher than a minimum symbol rate defined in said CDMA mobile communication system, and for  
15 transmitting the pilot channel.

7. The base station as claimed in claim 6, wherein the  
symbol rate higher than the minimum symbol rate is determined in accordance with a relationship between  
transmission power of each channel and channel capacity.  
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8. The base station as claimed in claim 5 or 6, wherein the pilot channels assigned to second and subsequent orthogonal code sets are not transmitted.

25 9. A CDMA mobile communication system comprising the base station as claimed in any one of claims 5-8.

